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March 1, 2004

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Bowling Green, KY 42101

**HAND-DELIVERED** 

2002-642

I enclose the resume' for Robert B. Benson and supporting affidavit which pertain to this cost of service investigation. Mr. Benson is expected to express the opinions contained in the McKinley affidavit of March 1, 2004. Mr. Benson will be called on behalf of the Warren County Water District in these three (3) cases in response and in rebuttal to the prefiled testimony of Messrs. Amato and Reid.

Very truly yours,

COLE & MOORE, P.S.C.

Thurstword Frank Hampton Moore, Jr.

FHM,JR/dab

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## AFFIDAVIT OF J. ROWE MCKINLEY

The Affiant, J. Rowe McKinley, after first being duly sworn, state for his affidavit as follows:

- 1. I am a director in the firm of Black & Veatch and have attached a copy of my resume to this affidavit.
- 2. I am one of the authors of the American Water Works Association Manual M1, Principles of Water Rates, Fees and Charges, and am presently the Chairman of the AWWA Rates and Charges Committee, which is responsible for the preparation of this manual of practice.
- I have participated in numerous cost of service investigations during my
   year career in strategic financial planning and rate setting for utilities.
- 4. As set forth in the AWWA Manual M1 in calculating the cost of service for overall fire protection, it is most appropriate to use the maximum available fire flow capacity within the system to establish the total fire flow demand units of service for the system. Once the total cost of service for fire protection service is identified, the distribution of this total cost between public and private fire protection service, exclusive of any direct costs allocable to the maintenance and capital costs for public fire hydrants, is on the basis of the number of 6-inch equivalent connections. To use average flow rates, rather than the maximum available flow rates, does not provide for an appropriate proportional sharing of system costs for fire protection service.

## FURTHER THE AFFIANT SAYETH NOT.

J. ROWE MCKINLEY

STATE OF KANSAS
)
COUNTY OF Johnson
)

I, the undersigned, do hereby certify that the foregoing was this day produced before me in the aforementioned state and county, and it was signed, sworn to, acknowledged, and delivered by J. Rowe McKinley, to be his voluntary act and deed for the purposes therein contained on this <u>15+</u> day of March, 2004.

NOTARY PUBLIC

My Commission expires: 2-6-2008

SHELLY HOFFMAN
STATE OF KANSAS My Appt. Bop. 2-6-200 Q

# ₽,

## J. ROWE MCKINLEY

#### Director



Education
B. S., Civil Engineering,
University of Kansas, 1970
B. S., Business and Industrial
Administration, University of
Kansas, 1971

Professional Registration Registered Professional Engineer: Illinois, Kansas, Massachusetts, Michigan, Missouri, Ohio, Pennsylvania

Total Years Experience 33

Joined B&V 1970

Professional Associations ASCE, AWWA, WEF

Language Capabilities English Spanish – Basic Understanding Mr. McKinley has served as Principal-in-Charge and Project Manager on a wide variety of projects involving utility accounting, rates, and financing, with particular emphasis being in the areas of water and wastewater utility financial matters for municipal, investor-owned, and industrial clients.

The specific types of studies in which Mr. McKinley has been engaged include: rate studies, involving the development of enterprise fund based revenue requirements, allocation of costs of service, and design of rates; engineering and financial feasibility studies related to official statements for revenue bond offerings by municipal water and wastewater utilities; studies of wastewater surcharge rates; studies involving the determination of system development charges for new customer connections; studies of cost accounting systems; and property valuation studies. The majority of the projects in which Mr. McKinley has been involved are for large, complex metropolitan utilities. Mr. McKinley has also presented expert witness testimony in utility rate proceedings.

### Representative Project Experience

## North American Development Bank, San Antonio, Texas

One of the outcomes of the North American Free Trade Agreement was the establishment the North American Development Bank (NADB) located in San Antonio, Texas. The NADB is an international financial institution capitalized in equal parts by the governments of the United States and Mexico. The purpose of the NADB is to provide financial assistance for environmental infrastructure projects related to water supply, wastewater treatment, and solid waste management in the border region.

One of the recent programs developed by the NADB to encourage successful utility operations in the border communities is the Utility Management Institute (UMI), established in 1999. This program provides participants with the opportunity to enhance their managerial, leadership, and financial skills through a focused professional development forum. Instruction by utility professionals and private sector consultants, combined with practical, interactive exercises and a sharing of experiences among the UMI participants, promotes a learning environment in which participants are exposed to tools, techniques and information that is relevant to their day-to-day operations.

The curriculum of the UMI consists of four separate modules, with three sessions of each module being presented during the inaugural year. Module I includes Planning, Developing, and Implementing a Successful Utility (mission statement and vision, organizational structure, job description, lines of responsibility, emergency plan, internal controls). Module II consists of Financial Administration issues such as standard accounting statements, budgeting, reserves, alternative rate structures, and financial and operating ratios. Module III addresses Financial Planning matters including prioritizing capital programs, alternative sources of capital, successfully accessing capital markets, financial planning, cost allocation/rate design, and identifying opportunities for improvement in financial and operational areas. Module IV covers the Leadership subjects of improving communications, traits of effective leadership, conflict resolution, and effective change process. Mr. McKinley served as the overall Program Coordinator and an Instructor in both Modules II and III.

In addition to the work for the NADB in conjunction with the UMI Program, Mr. McKinley has provided technical financial consulting assistance to the NADB in

evaluating the financial feasibility of providing loans to the water and wastewater utility in Piedras Negras, Mexico. The feasibility study focused on evaluation of the existing organizational structure of the utility, its record keeping and reporting systems, and the capacity of the utility to reimburse the NADB for its loans associated with improvements to the wastewater collection system, considering such issues as overall revenue increases and the affordability of such increases.

# Philadelphia Water Department, Philadelphia, Pennsylvania

Performed comprehensive studies of revenue requirements, costs of service, and rates for water and wastewater utilities in 1974, 1976 (revenue requirements only), 1980 (revenue requirements only), 1982, 1985, 1987, 1990 (wastewater only), 1992, and 2001. In conjunction with these studies beginning in 1982, expert witness testimony was presented by Mr. McKinley during rate hearing proceedings before an independent hearing examiner. The cost of service studies involved allocation of costs of service and determination of charges for 10 municipal wholesale wastewater customers and two wholesale water customers in accordance with the terms of wholesale service contractual agreements with these customers.

Participated in educating a citizens advisory committee regarding alternative stormwater cost allocation and rate methodologies and the impacts of the alternative rates on various representative customers. The annual cost of stormwater service in Philadelphia of approximately \$75 million is presently recovered through the monthly wastewater service charge and varies by the size of the customer's water meter. The alternative methodology selected by the citizens advisory committee will take advantage of the City's newly evolving GIS network and new billing system to establish stormwater charges based upon the customer's impervious and gross property area.

Assisted with issuance of revenue bonds in 1981, 1982, 1983, 1984, 1985, 1986, 1989, 1991, 1992, 1993, 1995, 1997, 1998, 1999, 2001, and 2003 totaling over \$4.2 billion, including preparation of required engineering and financial feasibility studies, presentations before bond rating agencies, and preparation of official statements.

Participated in preparation of a report on the cost accounting system for operation and maintenance expenses of the Water Department in 1984. Responsible for preparation of a report on the work order cost accounting system for the inlet cleaning section of the Water Department in 1987. Other miscellaneous financial, accounting, and rate related services have been provided on a continuing basis since 1974.

# Water District No. 1 of Johnson County, Kansas

Prepared comprehensive report on revenue requirements, costs of service, and rates for water service in 1977 and have assisted the District's staff in updating that report, generally on an annual basis, since the original report was prepared. In 1978 a draft report was prepared which examined alternative rate forms, including commodity-demand rates, excess use rates (whereby usage in excess of an established base use by individual customers would be charged at a higher unit charge), and inverted rates. In addition to rates for general water service, system development charges or new customer connection fees were also developed in the 1977 report. Studies related to updating these charges have been prepared in 1983, 1987, 1991, and 2001. In 2003 a report was prepared which established a

template for determining system development charges and rates for water service applicable to new wholesale service customers.

In accordance with the revenue bond resolution of the District, periodic operation reports which address the physical condition of District facilities and operational, financial, and administrative activities were prepared in 1981, 1985, 1989, 1992, 1995, 1998, and 2001.

In conjunction with the construction of facilities to accommodate the expansion of the District's service area and growth in its customer base, assistance with numerous revenue bond issues was provided including issues in 1980, 1982, 1984, 1985, 1986, 1988, 1990, 1991, 1993, 1994, 1996, 1999, 2000, 2001, and 2002 totaling approximately \$472 million. Services associated with these bond issues include preparation of necessary certification for bond covenant compliance and preparation and review of official statements.

Other services for the District since 1977 include assistance with contract negotiations with wholesale service customers, preparation and review of financial analysis regarding acquisition and mergers with smaller, adjacent water districts, and various other rate and financial related services.

Water and Sewer Utility Administration, Washington, D.C.

In 1981 prepared a report which detailed projection of revenues and revenue requirements for the water and wastewater utilities and indicated necessary across-the-board increases to meet projected revenue requirements under alternative assumptions regarding collectibility of accounts receivables. Prepared an analysis of historical water and wastewater billings, consumption amounts, and status of accounts (active versus inactive) for the federal accounts billed by the Water and Sewer Utility Administration. The analysis encompassed billings for fiscal year 1984-1986.

In preparation for a planned initial revenue bond sale in 1988, prepared a draft engineering and financial feasibility report which included an assessment of the District's water and wastewater utilities, set forth assumptions regarding potential bond indenture requirements, and projected revenue and revenue requirements for the water and wastewater utilities. Also in 1988, established necessary steps for the District to initiate a fixed asset/continuing property record system.

In 1991 commenced a comprehensive study of revenue requirements, costs of service, and rates for the water and wastewater utility. The study included a customer survey with several of the questions geared to solicit customer attitudes toward water conservation. The comprehensive study examined several alternative rate forms, including conservation based rates. During the period 1992 through 1996, the comprehensive rate study initiated in 1991 was updated on several occasions to recognize changes in various district policies and to reflect the directives of a new administration.

In 1996 Black & Veatch became an integral part of the project team responsible for assisting the water and wastewater utilities transition from a department within the District organization to an autonomous, stand alone utility authority. Assistance was provided in the areas of utility finance, procurement, human resource, and utility operations issues.

Rates and Charges Committee, American Water Works Association

As a member of the American Water Works Association's Rates and Charges Committee for the past nine years, and currently Chairman of the Committee, Mr. McKinley has actively participated in the preparation of the following AWWA Manuals: M1 Water Rates, Third and Fourth Editions; M26 Water Rates and Related Charges, Second Edition; M35 Revenue Requirements, First Edition; M34 Water Rate Structures and Pricing, First and Second Editions; and was a member of the editorial subcommittee which recently completed the new Manual M1 Principles of Water Rates, Fees, and Charges.

## Additional Experience

In addition to the projects described above, Mr. McKinley has also been involved as Principal-in-Charge in numerous other studies that relate to water and wastewater utility financial and rate matters. In the role of Principal-in-Charge, Mr. McKinley was involved in the presentation of study findings and overall review of the study process and methodology. Clients for whom Mr. McKinley has provided utility consulting services include:

Fayetteville and Little Rock, Arkansas; Orlando Utilities Commission, Manatee County, Gainesville Regional Utilities, and Tallahassee, Florida; Lawrence, Topeka and Board of Public Utilities, Kansas City, Kansas; East Baton Rouge and New Orleans, Louisiana; MWRA, Boston, Massachusetts; Lee's Summit, and St. Louis Metropolitan Sewer District, Missouri; Orange Water and Sewer, North Carolina; Upper Mohawk Valley Regional Water Authority, New York City Water Board, and Buffalo, New York; Charleston Commissioners of Public Works and Grand Strand Water & Sewer Authority, South Carolina; Memphis Light, Gas & Water, Tennessee; Dallas, San Antonio, and Toledo Bend Water Group, Texas; and Norfolk, Fairfax County, and Henrico County, Virginia.

#### Publications/Presentations

"Structuring an Effective Contract for the Provision of Wholesale Water and Wastewater Service," a paper presented at the AWWA/WEF Joint Management Conference, Dallas, Texas, March 2003.

"Presentation of Manual M1, Principles of Water Rates, Fees, and Charges," a preconference seminar at the AWWA Annual Conference, Denver, Colorado, June 2000. Mr. McKinley presented the cost of service allocation portion of the Manual M1.

"Presentation of Manual M34, Water Rate Structures and Pricing," a preconference seminar at the AWWA Annual Conference, Chicago, Illinois, June 1999. Mr. McKinley presented the chapters which address the basic alternative rate forms and their application.

"Rate Making 101," a preconference seminar at the AWWA Annual Conference, Atlanta, Georgia, June 1997. Mr. McKinley presented the section on Distribution of Costs to Customer Classes, following the AWWA Manual M1, Water Rates, as the example.

"Mock Water Rate Hearing," a preconference seminar at the AWWA Annual Conference, New York, New York, June 1994. Mr. McKinley served as the utility's water rate consultant during this presentation, following the principles and examples outlined in the AWWA Manual M1, Water Rates.

"Identifying and Financing Capital Costs for Your Utility," a paper presented at the AWWA Annual Conference, San Antonio, Texas, June 1993.

"Alternative Methodologies for Calculating System Development Charges," a paper presented at the AWWA Annual Conference, Vancouver, British Columbia, Canada, June 1992.

"Alternative Water Charge Systems for Multi-Use Water Supply Projects," a paper presented at the Water Resources Planning and Management Conference, Sacramento, California, May 1989.

"Innovative Financing: Funding the County Infrastructures through the Year 2020," a paper presented at the National Association of County Engineers, March 1989.

"Developing Supportable Customer Class Demand Factors," a paper presented at the AWWA Annual Conference, June 1988.

#### **Principal Consultant**

Specialization
Financial and
Management Consulting
for Water Wastewater and
Stormwater Utilities
National Practice
Leader for Stormwater
Services

#### Education

B. S., Civil Engineering, Kansas State University, 1963

Professional Registration Kansas, Louisiana, Montana, South Carolina, District of Columbia

**Total Years Experience** 

Joined B&V 1963

Professional Associations APWA, ASCE, AWWA, MSPE, NSPE, WEF, NAFSMA

Language Capabilities English Mr. Benson has served as project manager on a broad range of projects including utility organizational studies, revenue bond engineering and financial feasibility studies, operations reports, bond rating agency presentations, comprehensive studies of revenue requirements and costs, pretreatment program development, fixed asset valuation/depreciation, contractual service assistance, expert witness services, rate arbitration, economic selection and scheduling, short and long-range financial planning, cost of service studies, and rate design for water, wastewater, and stormwater utilities

#### Representative Project Experience

Municipal Water Works and Little Rock Wastewater Utility, Little Rock, Arkansas

Conducted comprehensive financing, cost of service, and rate design studies for each of these separately administered utilities. Deliverables included separate reports and user friendly financing and rate models for ongoing future use by utility financial planners. Several workshops with various public, industry, and outside City wholesale customer groups were conducted during the course of the studies for public information and feedback. Assisted Municipal Water Works administrators in addressing outside City wholesale water customer questions and concerns regarding proposed rates of charge.

### Commissioners of Public Works, Charleston, South Carolina

Assisted with issuance of numerous revenue bonds between 1983 and the present, including preparation of financing plan updates, certification of bond covenant compliance, presentations before rating agencies, and assistance with preparation of official statements. Performed more than a dozen comprehensive studies of revenue requirements, costs of service and rates for water and wastewater utilities over a 28 year period. Directed preparation of water and wastewater utility financial planning, cost of service and rate design computer models and two subsequent updates designed for ongoing use by client, including software, procedures manuals, and in-house training. Assisted with preparation for litigation, successful settlement efforts, and negotiation of new contract with Department of Defense installations. Conducted original cost/current value appraisals of water and wastewater utility fixed assets in. Developed water and wastewater impact fees and performed two subsequent updates. Prepared fixed asset management system report. Work is currently in progress to establish continuing property record system. A utility wide strategic planning study was conducted, which also provided for benchmarking analyses, and competitiveness assessments. Other management/financial/rate related services continue to be provided on an as needed basis.

# Water and Sewer Utility Authority (previously Water and Sewer Administration), City of Washington, D.C.

Prepared wastewater utility industrial cost recovery ordinance for legal counsel review. Served as project manager in Phase I development of industrial pretreatment system to meet federal requirements, including industry surveys, field investigations and sampling, analysis of pollutant impact on treatment plant, review of legal authority, and preparation of sewer use and pretreatment ordinance. Directed Phase II development of industrial pretreatment system, including proposed organization and operation plans and detailed procedures manuals. Performed various studies and updates examining current value of 309 mgd Blue Plains Wastewater Treatment Plant and analyses of user jurisdictions'

cost participation as a basis for capacity allocation. The results were recognized as a key element in establishment of a negotiated inter-municipal agreement. Performed original cost appraisal of wastewater collection system facilities, including consideration of depreciation. Established scope of work, tasks, level of effort, and estimated cost of updating water, sanitary sewerage, and stormwater system assets and development of continuing property record. Performed several comprehensive analyses of water and sewer utility projected revenue requirements, allocated costs of service (the City's first), and rate design, also including consideration of conservation based rates, financing alternatives, survey of customer conservation attitudes and practices, and assessment of billing system capabilities. Assisted with establishment and operational transition from utility administration to semi-autonomous utility authority. Subsequent to the transition to a utility authority, directed the conduct of engineering and financial feasibility studies and preparation of a report that addressed the feasibility of a planned, firstever revenue bond issue of \$266,120,000. The report was incorporated as part of the bond official statement relative to the successful sale of the bonds. This work also included presentations before bond rating agencies and other official entities.

## Milwaukee Metropolitan Sewerage District, Wisconsin

The District provides wastewater transmission and treatment services to the City of Milwaukee, 17 other metropolitan communities within District boundaries, and 10 communities outside the District. As provided under existing agreements, we conducted a review of the District's existing user charge system and cost allocation procedures implemented in 1992. Specifically, this review provided for the identification and examination of system operation and treatment process changes occurring subsequent to 1992, as well as a review of major plant additions, to ascertain the impact that these changes may place on existing cost allocation and recovery procedures. Where it was determined that these changes required modifications to existing procedures, specific changes were recommended. Possible impacts on these cost allocation procedures occurring as a result of the District's recent 10-year operating agreement with United Water Services were also evaluated. Concurrent with this work, a review of the District's Waste Pretreatment Program cost recovery process was conducted.

Department of Utilities and Department of Public Works, Appleton, Wisconsin Conducted comprehensive studies of water and wastewater utility projected revenue requirements, costs of service, and rates. Developed multi-year financial plan to provide financing for \$54 million new water treatment plant, with staged annual water rate increases offset partially by staged annual wastewater rate decreases designed to minimize impact to customers. Assisted City in preparing Wisconsin Public Service Commission water rate application, reviewing PSC findings, and representing City at public rate hearing.

#### Water and Sewer Department, Wichita, Kansas

Provided financial and legal authority review services in connection with the City's Part 1 and Part 2 NPDES Permit applications. Served as Project Director for three separate revenue bond engineering and financial feasibility studies performed for the City, and the preparation of triennial reports on Condition and Operations. Performed two updates of Black & Veatch designed plant equity fees for water and wastewater utilities.

Stormwater Management Program, City of Los Angeles, California

Served as Project Manager for Financial Planning and Rate Development study whose purpose was to develop revenue/cost accounting capabilities, consider practical quality/quantity based fee structure with clean water incentives, and identify supplemental funding options to minimize future rate increases. A financing and rate model was also prepared for use in the study and for subsequent in-house use by City staff.

# Des Moines Wastewater Utility, and Wastewater Reclamation Authority, Des Moines, Iowa

Conducted a review of existing cost recovery policies and procedures, including provisions of the service agreement between the Authority and area communities receiving treatment service from the Authority. Work included multi-year capital and operation financing analyses, cost allocation and rate design studies for the City wastewater collection system owned and operated by the City, and Authority owned interceptor and treatment facilities, which are operated by the City. Services also included the preparation of a user friendly financing/rate model for the City sewer utility, and enhancements to an existing Authority financing/rate model with conversion to Excel software. Staff training in the use of the model was also provided. Proposed rates for the Year 2000 were adopted by the City. Model has been subsequently updated to recognize utility organizational and accounting changes.

#### Van Buren Municipal Utilities, Arkansas

Reviewed a rate study prepared for the City that provides treated water service to Van Buren Municipal Utilities. The purpose of this review was to examine the accuracy and equitability of cost allocation methodologies and procedures and the rates of charge proposed. Supporting calculations and documentation were reviewed for compliance with accepted industry practices and the terms of existing service agreements. The results of this examination and review were summarized in a report presented to utility administrators. Following an agreement to submit issues of concern to an arbitration panel in 2002, several contested issues were resolved. An expert report and other supporting documents and testimony were presented to the arbitration panel on behalf of the utility with respect to three unresolved issues, with favorable results.

## City of Baton Rouge/Parish of East Baton Rouge, Louisiana

Prepared engineering and financial feasibility studies and reports for official statements on \$55 million and \$70 million sewer utility revenue bond issues, respectively. Assisted in presentations before rating agencies in New York. Also prepared engineer's letter for official statement and assisted with issuance of \$27 million of certificates of indebtedness. Directed detailed studies and preparation of report summarizing the development of wastewater utility capital recovery (impact) fees for City/Parish consideration. Updated wastewater capital recovery fees for subsequent implementation by City/Parish. Conducted comprehensive wastewater utility cost of service and rate studies, including special consideration of cost credits applicable to enclave communities and universities providing their own collection and pumping facilities. Work included preparation of rate model for future use by staff, and training.

## Grand Strand Water & Sewer Authority, South Carolina

Worked with Authority and representatives of several area jurisdictions to develop equitable and practical concepts and procedures for customer cost allocation and capacity valuation for proposed regional water supply, treatment and transmission system. The procedures set forth in resulting report were adopted, as proposed, for inclusion in all project participant service agreements. Subsequently conducted comprehensive review and update of water and wastewater utility revenue requirement, cost of service and rate design studies, including modifications to computer rate model originally developed by others. City of Kansas City, Missouri

Stormwater management and financing evaluation services included (1) a review of the City's present stormwater management/financing program, (2) determination of actions required to achieve more effective stormwater control, (3) evaluation of potential funding options, (4) development of a program and financing strategy, and (5) assessment of program implementation requirements. The resulting report included a proposed action plan designed to accomplish recommended program objectives.

# Tarrant County Water Control and Improvement District No. 1, Fort Worth, Texas

Preparation and presentation of rate testimony before Texas Water Commission in support of District suit, which ended in negotiated settlement. Analysis of long-range water capital financing requirements and resulting projected rates for raw water service to metroplex cities. Subsequently prepared report on raw water service policy considerations. This report addresses District rights and responsibilities under Texas law, consideration of service to potential new customers, contract terms, and pricing. Preparation and presentation of testimony before Texas Water Commission examiner in successful support of District cost recovery and rate setting policies and practices. Study of long-range operating and capital financing requirements and rates under Settlement Agreement, including preparation of computer model, manual, and training to permit subsequent updating by District.

### Public Works Department, Johnson County, Kansas

Provided financial and administrative policy services related to the firm's preparation of a comprehensive county-wide stormwater management master plan. Responsibilities included consideration of policy alternatives and development of recommended policies for project prioritization, allocation of available funding, cost sharing, financing alternatives, project administration and funding procedures.

#### Little Blue Valley Sewer District, Missouri

Provided financial, cost allocation, and rate services in connection with master plan study. Conducted workshops with staff and advisory committee members to identify alternative financing and pricing options for evaluation. Financial services included the development of a multi year financing plan and alternatives for review. Among various cost allocation and pricing scenarios considered or evaluated were options which would recover the cost of more expensive new facility capacity from those customers responsible for the increased service demands that require the new capacity. Incentive based pricing designed to equitably recover capacity costs associated with customer infiltration/inflow from

contributing customers was also considered. Work also included preparation of budgeting model, and review of modified revenue bond ordinance and related consultations with bond and general counsels.

## Stormwater Management Utility, City of Cincinnati, Ohio

Performed comprehensive studies of future stormwater utility revenue requirements, costs of service and rates for the City Stormwater Management Utility. Particular attention was focused on the development of a practical financial program, including consideration of a broad range of clearly defined and prioritized alternative service and debt funding options.

## **Publications/Presentations**

- "Capital Financing Strategies" presented at WEF/AWWA Joint Management Conference 2002, Charlotte, NC, March 2002.
- "A Current Review of North American Stormwater Management Utilities" presented at ASCE 9th International Conference on Urban Drainage Portland, Oregon, September 2002
- "U.S. Stormwater Utilities What's the Latest?" co-authored by Robert B. Benson and Anna M. white and published in the October 1999 issue of APWA Reporter.